Post Tier 2 SCR Evaluation Worksheet

Site Name_____ **LUST #**_____

Location_____ **Registration #** _____

Corrective Action Conference Date _____ **Time**_____ **Location**_____

Submittal Date of Worksheet to All Conference Participants_____

INSTRUCTIONS:

This worksheet must be completed by the selected groundwater professional and submitted to all parties at least 10 days prior to the planned teleconference to discuss Post Tier 2 Options. This is a checklist only; the Groundwater Professional (GWP) is expected to formulate a detailed response, evaluating the best options to address the applicable high-risk conditions associated with the site. It is anticipated that a complete review will take 10 or more hours of a GWP's time to assess the site conditions, detail and justify a recommended approach, and discuss viable alternatives.

The goal of this Worksheet is to provide relevant data necessary to make an informed decision. If you are recommending a remediation technology, include site information that relates to the applicability of the technology to the site cleanup.

If you are recommending a Tier 3, investigate and supply information to demonstrate that this could be a viable approach. In some cases, permission could be granted to proceed to a Tier 3 Report.

PART I. CONFERENCE AND CONTACT DATA

GWP_____ GWP #_____ Phone_____

DNR Project Manager_____ Phone_____

Current Property Owner _____ Mtg Participant? Y/N Phone_____

Current Business Operator_____ Mtg Participant? Y/N Phone_____

RP/ Contractor's Client_____ Mtg Participant? Y/N Phone_____

Other Parties to Include in Conference and Telephone Numbers (City? Lessee? Renter?):

_____

_____

Funding Mechanism (IUST, PMMIC, Self, Other, None)_____

Is the site in the Global Settlement (Opt-In)? _____ Has it been discussed with RP? _____

Funding status: _____

_____

PART 2: GENERAL DATA

Tier 2 Deficiencies: Be prepared to discuss how Tier 2 SCR, SMR, and/or CADR deficiencies will be addressed**.** Generally, minor deficiencies will be dealt with in the next reporting event.

Site Conditions

Active USTs? (Y / N):_____Removed USTs? (Y / N):____ Date / # Removed:_____

Closed In Place USTs:_____ Date / #Closed In place:_____

Active ASTs: _____ Removed ASTs:_____

Current Use of Site:_____

Financial Responsibility Mechanism for active UST system:_____

Geology/Hydrogeology

K min. at MW-?_____ K max. at MW-?_____

Bedrock site (Y/N) _____ Type: _____

Depth(s) to bedrock: _____

Range of soil contamination (depth - based on field screening readings): _____

Depth to water at soil source: _____(range based on all data)

Depth to water at GW source: _____(range based on all data)

Depth to water across plumes: _____(range based on all data)

Groundwater flow direction and variations:_____

Stratigraphy (describe): _____

_____

_____

High Risk Issues

Are there any past or present known, actual impacts to receptors such as contaminants in drinking water wells or plastic water lines, petroleum odors in basements, or sheen on surface waters? If yes, identify the receptor and its current status and risk classification.

Drinking Water Wells: _____

Plastic Water Lines: _____

Vapor Receptors: _____

Surface Water:_____

Has over-excavation or other remediation/corrective action been implemented at the site? Describe.

_____

_____

Possible Site Restrictions:

Are you aware of any restrictions or obstacles which could hinder or prevent some corrective actions, such as buildings, roads, utilities, access issues, business restrictions, future uses, off-site or contributing sources, old / new release issues, cost-share with other LUST sites, etc?

_____

_____

Contaminant Concentrations and High Risk Receptors/Pathways

Free Product:

Free Product present now? (Y/N):_____Date of most recent FP report:_____

Which wells had FP in the last year _____

Recent product thickness (ft): _____

What kind of FP recovery is or was conducted?_____

Source Concentrations: Provide the maximum concentrations from the latest approved Tier 2.

GROUNDWATER				SOIL				
Chemical	Location (MW)	Date	Conc. (ug/L)	Location (BH, MW)	Date	Conc. (mg/kg)	Depth	Soil source re-sampled?
B								
T								
E								
X								
TEH-d								
TEH-wo								

High Risk Pathways and Receptors: Use the data from the latest approved Tier 2 or approved SMR. If there are multiple high risk receptors in the same pathway, list the number of receptors and only the lowest SSTL.

HR Pathway	HR Receptor	Chemical	Lowest SSTL	Proposed Corrective Action
GW-PWL	**PWL-1**	**B**	**421 ug/l**	**PWL replacement**
SL-PGWS	**PGWS**	**TEHd**	**123,000 ug/l**	**Institutional Control-City Ordinance**

Complete the table below regarding each drinking / non-drinking water well identified as a receptor:

Well Use: PV = Private, M = Municipal, P = Public, non-municipal									
Well # (Tier 2)	Dww1								
Use (PV, M, P)	P								
Actual Plume	N								
Simulated Plume	Y								

If new data has been collected since the submission of the Tier 2, SMR, or CADR (i.e., current contaminant data, receptor surveys, boring logs), provide the data as an attachment to the checklist.

PART 3. OPTIONS EVALUATION

The questions/options listed are not intended to be a comprehensive list, but are provided as a starting point for the evaluation. Your knowledge and experience as a GWP are essential in the evaluation and to the overall process.

The following questions/options should be considered for each pathway/receptor identified as high risk. Indicate if the option listed is feasible; if so, include projected costs, method for estimating costs, and source of information. If not feasible, explain why. Provide your evaluation as an attachment with the appropriate section headings.

Section I. Water Wells (Drinking and Non-Drinking Water Wells)

- ❑ Tier 3 an option? (pumping test, stratigraphy, non-expanding plume) _____
- ❑ Is the water well currently used? _____
- ❑ Can the well be re-cased? _____
- ❑ Can the water well be plugged? _____
- ❑ Is public water available? _____
- ❑ Is an alternate water source available? _____
- ❑ Has the owner of well been contacted regarding risk or replacement? _____
- ❑ Technological control possible? (i.e., point of use treatment) _____
- ❑ Possible to relocate a water well outside of actual or simulated plume? _____
- ❑ Have source control been used to remove soil/gw sources? _____
- ❑ Other alternatives? _____
- ❑ Active remediation options? _____

Section 2. Protected Groundwater Source

- ❑ Is public water available? _____
- ❑ Does an institutional control (IC) exist regarding well placement? _____
- ❑ Can an IC be obtained? _____
- ❑ Identify any known prior attempts to secure an IC. _____
- ❑ Has the soil source/maximum been re-sampled? _____
- ❑ Is Tier 3 an option? (i.e., aquifer characterization, pumping test) _____
- ❑ Has source control been used to remove soil/gw sources? _____
- ❑ Active remediation options? _____
- ❑ Other alternatives? _____

Section 3. Plastic Water Lines (PWL)

- ❑ Can a 3 ft. separation be documented between water levels & PWL? _____
- ❑ Could the PWL be relocated outside the plume? _____
- ❑ Length of PWL in actual plume. _____
- ❑ Length of PWL in actual plume. + 50 ft _____
- ❑ Total length of PWL in actual & simulated plumes. _____
- ❑ Is replacement with metal pipe possible? _____
- ❑ Has the owner of PWL been contacted regarding risk or replacement? _____
- ❑ Is Tier 3 an option? (i.e., plume stability or other) _____
- ❑ Source control been used to remove soil / gw sources? _____
- ❑ Active remediation options? _____
- ❑ Other alternatives? _____

Section 4. Vapor Receptors

- ❑ Has soil gas been conducted at the soil source? _____
- ❑ Has soil gas been conducted at the groundwater source? _____
- ❑ Has SG been conducted at alternate points of compliance? _____
- ❑ Can the receptor be moved or eliminated? _____
- ❑ Is it possible to prove receptor submergence? _____
- ❑ Is a zoning change possible? Verify current zoning. _____
- ❑ Can the property be purchased? _____
- ❑ Has the owner been contacted regarding risk or replacement? _____
- ❑ Is venting possible at the point of exposure? _____
- ❑ Is the soil plume submerged? _____
- ❑ Has the soil source been re-sampled? _____
- ❑ Is Tier 3 an option? (non-expanding plume, etc.) _____
- ❑ Active remediation options? _____
- ❑ Other alternatives? _____

Section 5. Surface Water Receptors

- ❑ Is Tier 3 an option? (i.e., non-expanding plume) _____
- ❑ Active remediation options? _____
- ❑ Other alternatives? _____

Section 6. Recommended Approach

Choose an approach and at least one alternative, explain them, and provide justification for your selections. If selection of alternatives depends upon collection of additional data or other issues, describe the alternative approaches and discuss technologies in detail.

Provide a cost estimate for the chosen approach and for at least one alternative. These cost estimates must be sufficiently detailed and formatted such that the alternative technologies can be compared.

If an active remediation system is recommended, estimate time required to reach SSTLs.

CERTIFICATION:

I, _____, Iowa Certified Groundwater Professional No. _____,

certify that the above information is true based on my knowledge of the site and the most recent RBCA evaluation completed and accepted by the Department for the referenced site:

_____ _____

(signature) (date)